



Fact Sheet

Hazard Mitigation

What Is Hazard Mitigation?

Hazard mitigation is defined as action that is taken before, during, or after a disaster or emergency to eliminate or reduce the risks posed to human life and property by natural, technological, and human-related hazards.

How Is It Accomplished?

Hazard mitigation can be accomplished through specific "structural projects," such as storm shelters or floodwalls that provide physical protection from natural hazards. Hazard mitigation can also be achieved through the coordination and application of resources, programs, initiatives, and authorities. For example, local ordinances can limit the building of structures that will periodically get flooded over by a nearby river.

What Are Some Examples of Hazard Mitigation Projects?

Voluntary acquisition or elevation of flood prone structures; storm water management projects that reduce flood risk; construction of safe rooms; retrofit of structures for wind protection; protective measures for utility infrastructure; vegetation management for dune restoration or wildfire prevention.

Is Hazard Mitigation Cost-Effective?

Research has found that each dollar which has been spent on hazard mitigation prior to an expected event (such as a flood or ice storm) can prevent six or more dollars in damages that would otherwise have been suffered.

How Does Having a Hazard Mitigation Plan Help Communities Reduce Their Risk?

The hazard mitigation planning process involves 1) identifying the hazards that have or could occur, 2) determining the vulnerability of the jurisdiction to those hazards, 3) identifying strategies to reduce risk, and 4) implementing and updating the plan. It is critical for communities to understand the risks posed by hazards to be able to effectively target resources to where they are needed most.

How does National Flood Insurance Program participation help communities reduce their risk?

The aim of the NFIP is to reduce the impact of flooding on private and public structures. Participating communities adopt and enforce a floodplain management ordinance which facilitates wise local management and development of floodplains with the intent of reducing flood losses. Participation also allows property owners to insure against flood losses.

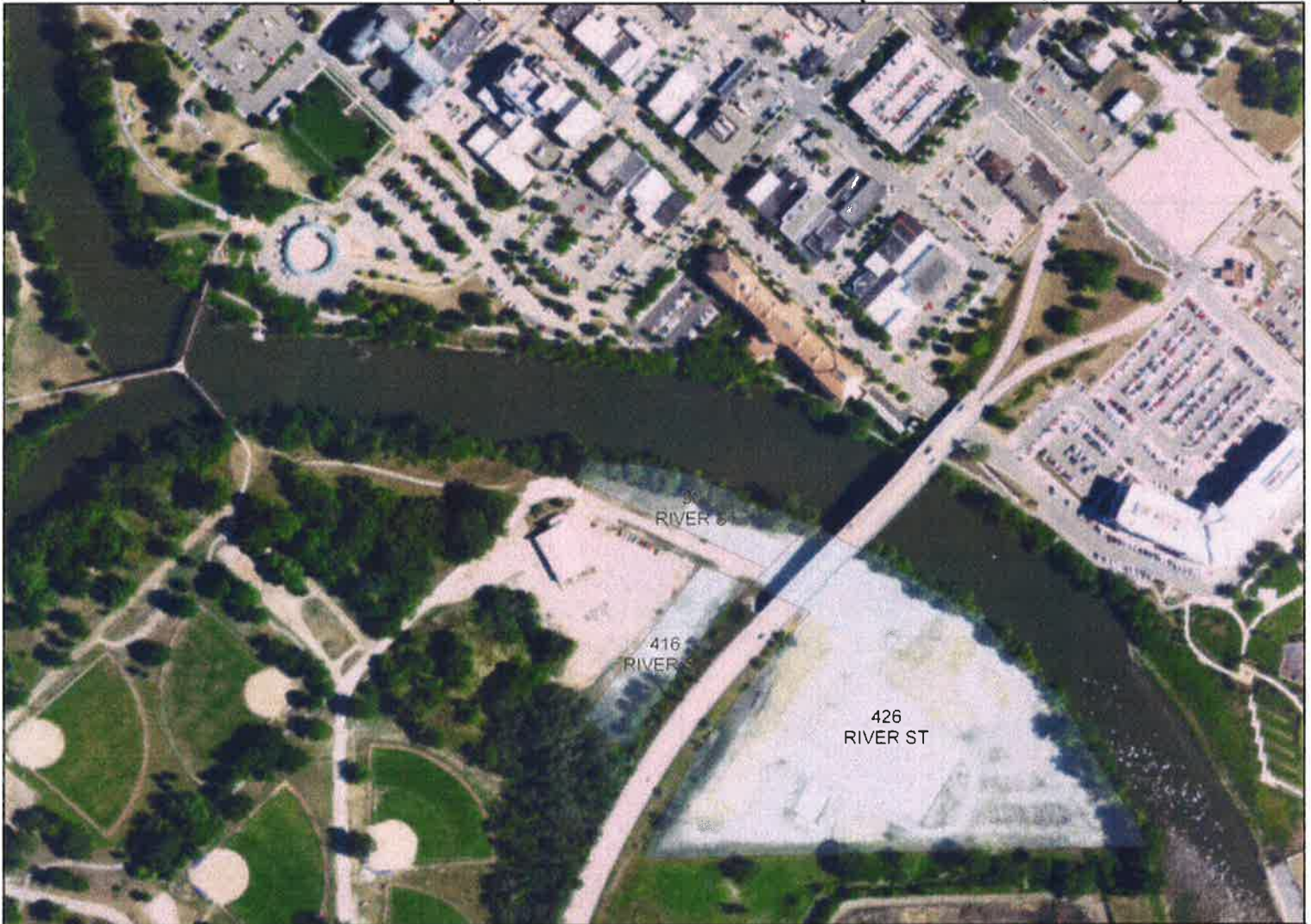
Has Michigan experienced hazard mitigation successes?

Yes. Returns on investment of hazard mitigation projects are not always realized in the short-term but properly scoped and implemented projects likely will pay dividends in the long-term. The June 2017 flooding in mid-Michigan resulted in a couple of notable successes:

- 1) A commercial cement product making company in Midland was purchased by the city with FEMA Flood Mitigation Assistance grant funds. The buildings were removed in 2015 and in June 2017 the Tittabawassee River flooded the site and would have inundated all of the buildings. Based on past flood insurance claims for the property (a \$1 million in claims have been paid on the site from past floods), more than \$300,000 in damages were likely avoided.
- 2) A 25 acre detention basin was constructed in Bay County to protect 75 homes in two adjacent neighborhoods. The project spared these homes from damage. The county drain commissioner says it is difficult to assess the exact savings from this event but impacts would likely have exceeded damages from the 1996 Presidential disaster that affected these homes.
- 3) Hazard Mitigation Success Stories:

http://www.michigan.gov/documents/msp/Michigan_Hazard_Mitigation_Success_Stories_May_2011_Final_Edition_web_355580_7.pdf

Mitigation Site: 4D Old Castle Company 426 River St Not Flooded Top, Flooded Bottom (June 24, 2017)



Michigan State Police
Emergency Management and
Homeland Security Division

This information is being provided by the Michigan State Police, Emergency Management and Homeland Security Division (MSP/EMHSD). This image was created from video captured with the FLIR SS380-HD HDEO video camera aboard the Trooper 2 helicopter.

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